WHAT IS CLAIMED IS:

1. An interference cancellation (IC) method comprising the steps of:

receiving signals from at least two users, said received signals forming respective signal data streams; and

performing an interference cancellation (IC) process on a given portion of each of said signal data streams, each said given portion being within a common window, whereby respective interference between each of said respective data streams is minimized.

2. The method according to claim 1, further comprising, upon completion of said performing step, the step of shifting said common window to another portion of said signal data streams.

3. The method according to claim 2, wherein said common window has a given window size, said method further comprising the step of modifying, after said step of shifting, said given window size.

4. The method according to claim 2, wherein said step of shifting further comprises the step of:

shifting said common window by a full window length.

5. The method according to claim 2, wherein said step of shifting further comprises the step of:

shifting said common window by a fractional window length.

6. The method according to claim 1, wherein said step of performing is repeated a plurality of times on said given portion of said respective signal data streams, within said common window.

7. The method according to claim 1, wherein said common window has a constant window size.

8. The method according to claim 1, wherein said respective signal data streams comprise symbols therein.

9. The method according to claim 1, further comprising the step of:

determining, at the end of said common window, at least one symbol within at least one of said respective signal data streams, said at least one symbol extending outside said common window, wherein, in said step of performing, said IC process processes said at least one symbol.

10. An interference cancellation apparatus in a telecommunication system, said apparatus comprising:

receiving means for receiving signals from at least two users, said received signals forming respective signal data streams; and

performing means for performing an interference cancellation (IC) process on a given portion of each of said signal data streams, each said given portion being within a common window, whereby respective interference between each of said respective signal data streams is minimized.

11. The apparatus according to claim 10, further comprising shifting means for shifting, upon completion of said performing means, said common window to another portion of said signal data streams.

12. The apparatus according to claim 11, wherein said shifting means shifts said common window by a full window length.

13. The apparatus according to claim 11, wherein said shifting means shifts said common window by a fractional window length.

14. The apparatus according to claim 10, wherein said performing means further comprises repeating means for repeating said IC process a plurality of times on said given portion of said respective signal data streams, within said common window.

15. The apparatus according to claim 10, wherein said common window has a given window size, said apparatus further comprising modifying means for modifying said given window size.

16. The apparatus according to claim 10, wherein said respective signal data streams comprise symbols therein.

17. The apparatus according to claim 10, further comprising:

determining means for determining, at the end of said common window, at least one symbol within at least one signal data stream, said at least one symbol extending outside said common window, wherein said performing means performs said IC process on said at least one symbol.

18. A wireless telecommunications system comprising:

a receiver for receiving signals from at least two users, said received signals forming respective signal data streams; and

a processing unit for performing an Interference Cancellation (IC) process on a given portion of each of said signal data streams, each said given portion being within a common window, whereby respective interference between each of said respective signal data streams is minimized.

19. The system according to claim 18, further comprising a memory unit connected to said receiver for storing said respective signal data streams thereon, said memory unit being coupled to said processing unit.

20. The system according to claim 19, wherein said memory unit comprises a buffer memory, said processing unit performs said IC process on said respective signal data streams in said buffer memory.

21. The system according to claim 18, wherein said processing unit further comprises a repeater for repeating said IC process a plurality of times on the respective given portions of said respective signal data streams within said common window.

22. The system according to claim 18, wherein said processing unit further comprises a shifter for shifting said common window to another portion of said respective signal data streams.

23. The system according to claim 18, further comprising a determiner for determining, at the end of said common window, at least one symbol within said signal data streams, said at least one symbol extending outside said common window, wherein said performing means performs said IC process on said at least one symbol.

24. A memory storage device for storing a data structure therein, said memory storage device comprising:

(a) receiving means for receiving data;

(b) performing means for performing an interference cancellation (IC) process on a portion of said received data, said IC process processing said portion within a window; and

(c) shifting means for shifting said window.

25. The memory storage device according to claim 24, wherein said performing means repeats said IC process on said portion of said received data within said window a plurality of times.

26. The memory storage device according to claim 24, wherein said shifting means shifts said window by a full window length,

27. The memory storage device according to claim 24, wherein said shifting means shifts said window by a partial window length.

28. The memory storage device according to claim 24, wherein said received data comprise symbols therein.

29. The memory storage device according to claim 24, further comprising:

determining means for determining, at the end of said window, at least one symbol within said received data, said at least one symbol extending outside said window, wherein said performing means performs said IC process on said at least one symbol.